

What is claimed is:

1. An image processing apparatus that handles image data, comprising:

a dividing unit which divides image data into large blocks of a prescribed size and further subdivides these large blocks into multiple smaller blocks;

a large block isolated point calculation unit which calculates the number of isolated points contained in each large block established by the dividing unit;

a small block isolated point calculation unit which calculate the number of isolated points contained in each small block established by the dividing unit; and

a halftone-dot region determination unit which determines whether or not a large block is a halftone-dot region based on the number of isolated points calculated by the large block isolated point calculation unit and the number of the isolated points calculated by the small block isolated point calculation unit.

2. An image processing apparatus as claimed in Claim 1,

wherein said halftone-dot region determination unit determine that a large block is a halftone-dot region if the number of isolated points in the large block equals or exceeds a first prescribed value and the number of isolated points in each small block contained in the large block equals or exceeds a second prescribed value.

3. An image processing apparatus as claimed in Claim 2,

wherein said second prescribed value is smaller than said first prescribed value.

4. An image processing apparatus as claimed in Claim 1, further comprising:

an image processing unit which corrects the image data based on the results of determination by said halftone-dot region determination unit.

5. An image processing apparatus as claimed in Claim 4, further comprising:

an image forming unit which performs image formation based on the image data corrected by said image processing unit.

6. An image processing apparatus that handles image data, comprising:

a dividing unit which divides image data into multiple small blocks;

a small block isolated point calculation unit which calculate the number of isolated points contained in each small block established by the dividing unit;

a large block isolated point calculation unit which calculates the number of isolated points contained in the large block composed of multiple smaller blocks based on the small block isolated point totals calculated by the small block isolated point calculation units; and

a halftone-dot region determination unit which determines whether or not a large block is a halftone-dot region based on the number of isolated points calculated by the large block isolated point calculation unit and the number of isolated points calculated by the small block isolated point calculation unit.

7. An image processing apparatus as claimed in Claim 6,

wherein said halftone-dot region determination unit determine that a large block is a halftone-dot region if the number of isolated points in the large block equals or exceeds a first prescribed value and the number of isolated points in each small block contained in the large block equals or exceeds a second prescribed value.

8. An image processing apparatus as claimed in Claim 7,

wherein said second prescribed value is smaller than said first prescribed value.

9. An image processing apparatus as claimed in Claim 6, further comprising:

an image processing unit which corrects the image data based on the results of determination by said halftone-dot region determination unit.

10. An image processing apparatus as claimed in Claim 9, further comprising:

an image forming unit which performs image formation based on the image data corrected by said image processing unit.

11. An image processing method that handles image data comprising the steps of:

dividing image data into large blocks of a prescribed size and further subdividing these large blocks into multiple smaller blocks;

calculating the number of isolated points contained in the large block established via division and the number of isolated points contained in the small block established via division; and

determining whether or not the large block is

a halftone-dot region based on the calculated number of large block isolated points and the calculated number of small block isolated points.

12. An image processing method as claimed in Claim 11,

wherein said determining step determine that a large block is a halftone-dot region if the number of isolated points in the large block equals or exceeds a first prescribed value and the number of isolated points in each small block contained in the large block equals or exceeds a second prescribed value.

13. An image processing method as claimed in Claim 12,

wherein said second prescribed value is smaller than said first prescribed value.

14. An image processing method that handles image data comprising the steps of:

dividing image data into multiple small blocks;  
calculating the number of isolated points contained in each small block established via division;  
calculating the number of isolated points contained in the large block composed of multiple smaller blocks based on the calculated number of small block isolated points; and

determining whether or not the large block is a halftone-dot region based on the calculated number of large block isolated points and the calculated number of small block isolated points.

15. An image processing method as claimed in Claim 14,

wherein said determining step determine that a large block is a halftone-dot region if the number of isolated points in the large block equals or exceeds a first prescribed value and the number of isolated points in each small block contained in the large block equals or exceeds a second prescribed value.

16. An image processing method as claimed in Claim 15,

wherein said second prescribed value is smaller than said first prescribed value.